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**SQUIB**

# *NEG NEG

Chris Collins
New York University, 10 Washington Place, New York, 10003, GB
cc116@nyu.edu

I argue that there is a grammatical (non-semantic) constraint in English that prohibits double negation, dubbed *NEG NEG. I adduce a range of structures to illustrate this constraint, and show that apparent counter-examples are not double negation.

**Keywords:** negation; double negation; contrastive negation; stripping

## 1 Introduction

The following examples show that it is possible to negate a subject quantifier DP:

(1) a. Everybody was there.
b. Not everybody was there.

(2) a. Many people were there.
b. Not many people were there.

However, it is not possible for the negation to be iterated:

(3) a. *Not not everybody was there.
b. *Not not many people were there.

I propose that this fact results from a syntactic constraint in English (and perhaps universally) that a given element X cannot be modified by negation twice:

(4) *[NEG1 [NEG2 X]]

A similar constraint, based on completely different data, has been proposed by De Clercq & Guido Vanden Wyngaerd 2017 (based on the distribution of the negative prefix *un-* with positive and negative adjectives).

For brevity's sake, I will exclude consideration of a range of structures discussed in Collins & Postal (2014; henceforth, CP2014) involving deleted (unpronounced) NEGs (e.g., reversal structures) that violate (4). In effect, I will implicitly be taking (4) to only hold when NEG1 and NEG2 are overt (non-deleted). I leave it to further research to reconcile the results of this paper with the analysis of reversal NPIs in CP2014. I also do not address the apparent counter-examples to (4) found in Latin forms like *non nemo*, *non nullus* and *non numquam* (Szabolcsi 2004; CP2014: 224, footnote 4).

## 2 Background: Collins & Postal 2014

In the framework of CP2014, negation modifies predicates, which are defined as having a semantic value whose type ends in t (t is the type of truth values T/F). For example, if P is true of *x*, then [not P] is not true of *x*. More generally:

(5) NEG takes X with semantic value $\lambda P_1 \ldots \lambda P_n$ […]
and returns Y with semantic value $\lambda P_1 \ldots \lambda P_n \neg$ […]

As Collins & Postal (2014: 25) note: "This rule is actually a schema for an infinite number of semantically different NEGs. There will be a distinct semantic value for NEG for each different semantic type: $\lambda P_1 \ldots \lambda P_n$ […]. For propositional variables p (no predicate abstraction), the negation is simply ¬p."

One of the implications of the framework in CP2014 is that negation is polymorphic, modifying constituents of various types, similar to the analysis of conjunction given in Partee & Rooth (1983).

In the case of quantificational DPs, NEG can in principle either modify the D or the whole DP:

(6) a. [[NEG D] NP] (inner negation)
b. [NEG [D NP]] (outer negation)

In the framework of CP2014, negative existentials (and certain kinds of NPIs) have the structure in (6a). In other words, *no person* has the structure [[NEG SOME] person], where NEG is realized as *no*, and SOME is realized as zero. That is, in this case negation modifies SOME directly. But given the semantics of negation in (5), there is no way to block structure (6b) for other quantifier phrases. For example, nothing blocks the quantifier phrase *not every person* from having the structure [NEG [every person]]. I will assume that only existential SOME takes inner negation to simplify the discussion (and reduce the number of alternative structures that need to be ruled out). See Collins (2017) on the difference between inner and outer negation.

Another question is whether the NEG in examples like (1b) heads a NEGP (taking a DP complement) or is simply adjoined to the DP. As far as I can see, the results of this paper are consistent with either approach.

## 3 Double negation of quantifiers

Consider now the sentences in (3), repeated below:

(7) a. *Not not everybody was there.
b. *Not not many people were there.

It is possible to show given CP2014's assumptions that the semantic value of [not not everybody] is the same as the semantic value of [everybody]:

(8) a. ⟦not not everybody⟧ = ⟦everybody⟧
b. ⟦not not many people⟧ = ⟦many people⟧

Therefore, it follows that the examples in (7) are not unacceptable for semantic reasons. Furthermore, it is unlikely that the examples in (3) are ruled out for pragmatic reasons. Unlike the usual violations of pragmatic principles, they seem sharply ungrammatical. For example, if the use of a sentence violates an implicature or a presupposition, the sentence seems infelicitous, not completely ungrammatical. Furthermore, it is unclear what the semantic approach would say about the apparent counter-examples discussed in section 5.

Rather, there is a syntactic constraint of the following kind:

(9) If X is any syntactic constituent, then *[NEG1 [NEG2 X]]

No such constraint is needed for categories like determiners. Consider the determiner *the*. I assume that *the* is of type $<<e, t>, e>$. It takes a constituent of type $<e, t>$ (a predi-

cate) and yields an individual. So it is semantically impossible to form the constituent [the [the man]], since the outside *the* needs something of type <e, t>, but [the man] is of type <e>. Negation has the property of not changing the type of the constituent it modifies (see (5)), which is why the issue of iterated negations comes up.

The constraint in (9) blocks the following structures for (7a). In (10a), there is double negation of the DP. In (10b), there is double negation of the D.

(10) a. *[not [not [everybody]]]
b. *[[not [not every]] body]

However, the following structure is not blocked:

(11) [not [[not every] body]

There are two ways to approach this issue. First, I could generalize (9) to also block the structure in (11). Second, I could claim that the structure in (11) is disallowed for independent reasons (e.g., that *not* never modifies the quantifier *every* directly). I will take the second approach in this paper, assuming (as in the discussion following (6)), that only the existential quantifier takes inner negation.

Another possibility that I put aside is that NEG1 modifies NEG2: [[NEG1 NEG2] everybody]. I assume that this could be ruled out by a generalization of (9), for example *[NEG1 [NEG2 (X)]].

The kind of data illustrated in (7) above is quite general. A quantifier DP can never be modified by double negation (on (12b) see Collins 2016):

(12) a. Even John was there.
b. Not even John was there.
c. *Not not even John was there.

(13) a. More than three people were there.
b. Not more than three people were there.
c. *Not not more than three people were there.

(14) a. Only John was there.
b. Not only John was there.
c. *Not not only John was there.

(15) a. A lot of people were there.
b. Not a lot of people were there.
c. *Not not a lot of people were there.

(16) a. Less than three people were there.
b. Not less than three people were there.
c. *Not not less than three people were there.

The constraint can also be extended to the following case:

(17) a. Nobody was there.
b. *Not nobody was there.
c. Will nobody be there?
d. *Will not nobody be there?
e. With no job, Bob is having a hard time.

f. *With not no job, Bob is doing well.
g. If nobody comes, the party will be awful.
h. *If not nobody comes, the party will nice.

In the framework of CP2014, negative quantifiers such as *nobody* have the following structure:

(18) [[NEG SOME] body]

Under that analysis, the structure of the subject of (17b) would be as in (19), which is ruled out by the double negation constraint in (9):

(19) [[NEG1 [NEG2 SOME]] body]

Once again, one faces the issue of why the structure in (20) is also disallowed.

(20) [NEG1 [[NEG2 SOME] body]]

Once again there are two ways to resolve the issue (generalize (9) or block NEG1 modifying the whole DP in this case). Given the discussion following (6), I assume that outer negation (NEG1 in (20)) is not possible for existential quantifier phrases. So only structure (19) is possible, and (19) is blocked by (9).

A similar constraint rules out doubly negated adverbs. (21c, d) show that whether or not there is subject-aux inversion, double negation of the adverb is unacceptable:

(21) a. I often manage to go on fall foliage tours.
b. Not often do I manage to go on fall foliage tours.
c. *Not not often I manage to go on fall foliage tours.
d. *Not not often do I manage to go on fall foliage tours.

It may be possible to extend (9) to the following case:

(22) a. Few people were there.
b. *Not few people were there.
c. Will few people be there?
d. *Will not few people be there?
e. If few people come, the party will be awful.
f. *If not few people come, the party will nice.

Assume that *few* is really a negative quantifier equivalent to *not many*, where (22a) is paraphrased as follows:

(23) There is no group g containing more than n (a contextually specified number) people such that for all x in g, x was there.

If these are the right truth conditions, then (22a, b) should have the following syntactic structures:

(24) a. [NEG [many people]] were there.
b. [NEG1 [NEG2 [many people]]] were there.

The structure in (24b) is blocked by (9).

Kayne (2002) argues that examples with *few* involve an unpronounced noun NUMBER, so that [few books] is analyzed as [few NUMBER books], where *few* is an adjective

modifying NUMBER. He also proposes that there is an unpronounced *only*: "The difference in interpretation between *a few/a little* and *few/little* may be attributable to the necessary presence of an unpronounced ONLY with the latter pair." Since *only* DPs can be modified by negation (see (14)), it is unclear whether Kayne's analysis can account for the data in (22b).

## 4 Range of further data

As shown in section 3, the constraint in (9) successfully blocks many cases of double negation of quantificational DPs. In this section, I show that it can be extended to a range of other data. First, consider the following *because* clauses:

(25) a. He didn't leave because he was angry.
b. Not because he was angry did he leave.
c. *Not not because he was angry he left.
d. *Not not because he was angry did he leave.

(25c, d) show that whether or not there is subject-aux inversion, the *because* clause cannot be doubly negated: *[NEG [NEG [because he was angry]]].

Similar examples can be found with purpose clauses:

(26) a. I did not leave early in order to catch the bus.
b. Not in order to catch the bus did I leave early.
c. *Not not in order to catch the bus I left early.
d. *Not not in order to catch the bus did I leave early.

Consider examples of contrastive negation discussed by McCawley (1991: 190):

(27) a. John drank not coffee, but tea (basic form)
b. John drank tea, not coffee (reverse form)

Neither of these forms can involve double negation:

(28) a. *John drank not coffee, (but) not not tea.
b. *John drank not not tea, (but) not coffee.

Consider now *stripping*, as defined by Hankamer & Sag (1976: 409): "Stripping is a rule that deletes everything in a clause under identity with corresponding parts of a preceding clause, except for one constituent (and sometimes a clause-initial adverb or negative)." I put aside the issue of whether contrastive negation should be analyzed as a form of stripping. Hankamer & Sag (1976: 409) give the following example:

(29) Allan likes to play volleyball, but not Sandy.

Once again, double negation is not possible here:

(30) a. It is not Allan who likes to play volleyball, but rather Sandy.
b. *It is not Allan who likes to play volleyball, but rather not not Sandy.

Similarly, when stripping is used in the answer to questions it also obeys *NEG NEG:

(31) A: Who was there?
B: Not John.
B': *Not not John.

## 5 Apparent counter-examples

A class of apparent counter-examples to (9) include sentences such as (32c) (see De Clercq & Guido Vanden Wyngaerd 2017 for discussion of other apparent counter-examples to the *NEG NEG constraint):

(32) a. I am happy.
b. I am not happy.
c. I am not not happy.

However, there is good reason to believe that the two negations in (32c) do not modify the same constituent. For example, as noted in Horn (2014), NEG2 has a very specific intonation, distinct from that of NEG1. And as also noted in Horn (2014), the interpretation of (32c) is not identical to that of (32a), as would be expected if the two NEGs modified the same constituent.

I tentatively suggest that in (32c), NEG1 is a sentential negation. In the framework of PP/minimalist syntax, it would head a NEGP, taking a VP complement. NEG2, on the other hand, directly modifies the adjective phrase. So I propose the underlying structure in (33a), where crucially NEG1 does not modify the adjective phrase but rather takes a VP complement. The copula *am* raises to adjoin to T yielding the correct word order shown in (33b).

(33) a. I NEG1 [$_{VP}$ am [$_{ADJP}$ NEG2 happy]]
b. I am NEG1 [$_{VP}$ <am> [$_{ADJP}$ NEG2 happy]]

One piece of evidence for this analysis of (32c) is the following. [NEG happy] can be modified by *very* and also the comparative marker *more* (in an informal register):

(34) a. He is very not happy.
b. He is more not happy than you are.

However, double negation is completely unacceptable here:

(35) a. *He is very not not happy.
b. *He is more not not happy than you are.

In (35a, b) there is no VP that could intervene between NEG1 and NEG2 and so they violate (9).

Furthermore, although (32c) is acceptable, (36) below involving triple negation is much worse:

(36) *He is not not not happy.

In this example, NEG1 is the sentential negation, and NEG2 and NEG3 modify the AdjP:

(37) He is NEG1 [$_{ADJP}$ NEG2 [$_{ADJP}$ NEG3 happy]]

In (37), the structure [$_{ADJP}$ NEG2 [$_{ADJP}$ NEG3 happy]] violates (9).

Now consider negation of infinitival clauses (based on data from Kayne 1999). Negation may appear either before or after the infinitival *to*:

(38) a. I persuaded John to not like Clinton.
b. I persuaded John not to like Clinton.

Double negation is also possible:

(39) I persuaded John not to not like Clinton.
'I persuaded John not to dislike Clinton.'

We can account for (39) in the same way as (32c). In (39) each NEG is negating a different constituent. NEG1 is sentential negation (perhaps taking a complement headed by *to*) and NEG2 is modifying the VP. So there is no violation of (9).

But now consider the following:

(40) a. *I persuaded John not not to like Clinton.
b. I persuaded John to not not like Clinton.

While (40a) is completely ungrammatical, (40b) seems to be OK under the same kind of interpretation as (32c). In other words, in (40b), there is a special intonation on NEG2, and the hope is that John comes to not dislike Clinton (not that he comes to like her).

Under my analysis, (40a) is ruled out by *NEG NEG, while (40b) has an analysis similar to (32c). NEG1 is sentential negation, and NEG2 negates the verb *like*. Concretely, I assume that *to* raises over NEG1 in (40b) so that (39) and (40b) have the same underlying structure.

## 6 Conclusion

In this squib, I have argued for a constraint on double negation: *NEG NEG. I have shown how this constraint applies to rule out doubly negated quantifier DPs, doubly negated adverbs, doubly negated *because* clauses and purpose clauses, contrastive double negation, double negation in stripping and the complex pattern of double negation in infinitival clauses. I have also shown how certain apparent counter-examples do not in fact violate *NEG NEG.

I have argued that *NEG NEG is a syntactic constraint, not a semantic constraint (nor a pragmatic constraint). I speculate it is a property of UG, holding of all languages.

Further work is needed to see whether *NEG NEG is a universal constraint or not. It has sometimes been claimed that Latin has structures which are counter-examples (Szabolcsi 2004; CP2014: 224). Furthermore, a comparison of *NEG NEG with a similar constraint discovered by De Clercq & Vanden Wyngaerd (2017) is needed. Can the two constraints be unified into one overarching double negation constraint?

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The author has no competing interests to declare.

## References

Collins, Chris. 2016. *Not even*. *Natural Language Semantics* 24. 291–303. DOI: https://doi.org/10.1007/s11050-016-9124-5

Collins, Chris. 2017. The distribution of negated quantifier phrases in English. Ms. New York University. (http://ling.auf.net/lingbuzz/003348).

Collins, Chris & Paul Postal. 2014. *Classical NEG raising*. Cambridge, MA: MIT Press. DOI: https://doi.org/10.7551/mitpress/9780262027311.001.0001

De Clercq, Karen & Guido Vanden Wyngaerd. 2017. Why affixal negation is syntactic. In Aaron Kaplan, Abby Kaplan, Miranda K. McCarvel & Edward J. Rubin (eds.), *Proceedings of the 34th West Coast Conference on Formal Linguistics*, 151–158. Somerville, MA: Cascadilla Proceedings Project.

Hankamer, Jorge & Ivan Sag. 1976. Deep and surface anaphora. *Linguistic Inquiry* 7(3). 391–426.

Horn, Laurence. 2014. The singular square: Contrariety and double negation from Aristotle to Homer. In Joanna Blchowiak, Cristina Grisot, Stephanie Durrlemann-Tame & Christopher Laenzlinger (eds.), *Collection of papers dedicated to Jacques Moeschler*. Department of Linguistics, University of Geneva. (https://www.unige.ch/lettres/linguistique/collaborateurs/profs/moeschler/festschrift/).

Kayne, Richard. 1999. Prepositional complementizers as attractors. *Probus* 11. 39–73. DOI: https://doi.org/10.1515/prbs.1999.11.1.39

Kayne, Richard. 2002. On prepositions that look DP-internal: English *of* and French *de*. *Catalan Journal of Linguistics* 1. 71–115. DOI: https://doi.org/10.5565/rev/catjl.56

McCawley, James D. 1991. Contrastive negation and metalinguistic negation. In Lise M. Dobrin, Lynn Nichols & Rosa M. Rodriguez (eds.), *Papers from the 27th Regional Meeting of the Chicago Linguistic Society, Part Two: The Parasession on Negation*, 189–206. Chicago, IL: Chicago Linguistics Society.

Partee, Barbara & Mats Rooth. 1983. Generalized conjunction and type ambiguity. In Paul Portner & Barbara H. Partee (eds.), *Formal semantics: The essential readings*. Blackwell. DOI: https://doi.org/10.1515/9783110852820.361

Szabolcsi, Anna. 2004. Positive polarity – negative polarity. *Natural Language and Linguistic Theory* 22. 409–452. DOI: https://doi.org/10.1023/B:NALA.0000015791.00288.43

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